

# U.S. Climate Change Technology Program

# Strategic Plan

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## ACRONYMS AND ABBREVIATIONS

<b>AFCI</b>	Advanced Fuel Cycle Initiative
<b>ANL</b>	Argonne National Laboratory
<b>AUV</b>	Autonomous Underwater Vehicles
<b>BC</b>	Black Carbon
<b>BES</b>	Office of Basic Energy Sciences, U.S. Department of Energy
<b>BESAC</b>	Basic Energy Sciences Advisory Committee
<b>BP</b>	British Petroleum
<b>BTU</b>	British Thermal Unit
<b>CCCSTI</b>	Committee on Climate Change Science and Technology Integration
<b>CCP</b>	Carbon Capture Project
<b>CCSP</b>	U.S. Climate Change Science Program
<b>CCTP</b>	U.S. Climate Change Technology Program
<b>CDIAC</b>	Carbon Dioxide Information Analysis Centre
<b>CEM</b>	Continuous Emissions Monitor
<b>CETC</b>	Natural Resources Canada CANMET Energy Technology Center
<b>CFC</b>	Chlorofluorocarbon
<b>CH<sub>4</sub></b>	Methane
<b>CHP</b>	Combined Heat and Power (system)

<b>CMM</b>	Coal Mine Methane
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>COL</b>	Construction and Operating License
<b>CSLF</b>	Carbon Sequestration Leadership Forum
<b>CSP</b>	Competitive Solicitation Program
<b>DG</b>	Distributed Generation
<b>DOC</b>	U.S. Department of Commerce
<b>DoD</b>	U.S. Department of Defense
<b>DOE</b>	U.S. Department of Energy
<b>DOI</b>	U.S. Department of the Interior
<b>DOS</b>	U.S. Department of State
<b>DOT</b>	U.S. Department of Transportation
<b>EIA</b>	Energy Information Administration
<b>EJ</b>	Exajoule
<b>EMF</b>	Energy Modeling Forum, Stanford University
<b>EOR</b>	Enhanced Oil Recovery
<b>EPA</b>	U.S. Environmental Protection Agency
<b>ESP</b>	Early Site Permit
<b>Euratom</b>	European Atomic Energy Community
<b>FACE</b>	Free-Air CO <sub>2</sub> Enrichment
<b>FACTS</b>	Flexible Automated Control Transmission Systems
<b>FCT</b>	Fuel Cell Turbine
<b>FES</b>	Fusion Energy Sciences, U.S. Department of Energy, Office of Science
<b>FHA</b>	Federal Highway Administration
<b>FTC</b>	Fuel Cell Turbine
<b>FTIR</b>	Fourier Transform Infrared Spectroscopy
<b>FY</b>	Fiscal Year
<b>Gen IV</b>	Generation IV
<b>GEO</b>	Group on Earth Observations
<b>GEO-SEQ</b>	Geological Sequestration (project)
<b>GEOSS</b>	Global Earth Observation System of Systems
<b>GHG</b>	Greenhouse Gas
<b>GIF</b>	Generation IV International Forum (nuclear power)
<b>Gt</b>	Gigatonnes (109 tonnes or metric tons)
<b>GtC</b>	Gigatonnes (109 tonnes or metric tons) of Carbon
<b>GtC-eq.</b>	Gigatonnes (109 tonnes or metric tons) of Carbon Equivalent (emissions)
<b>GWP</b>	Global Warming Potential
<b>H<sub>2</sub></b>	Molecular Hydrogen
<b>H<sub>2</sub>S</b>	Hydrogen Sulfide
<b>HCFC</b>	Hydrochlorofluorocarbon (refrigerant)
<b>HFC</b>	Hydrofluorocarbon
<b>HHS</b>	U.S. Department of Health and Human Services
<b>HNLC</b>	High Nutrient, Low Chlorophyll
<b>HTS</b>	High-Temperature Superconductivity (e.g. wire)
<b>HVDC</b>	High Voltage Direct Current

<b>IAEA</b>	International Atomic Energy Agency
<b>ICF</b>	Inertial Confinement Fusion
<b>IEA</b>	International Energy Agency
<b>IEOS</b>	Integrated Earth Observation System
<b>IFE</b>	Inertial Fusion Energy
<b>IGCC</b>	Integrated Gasification Combined Cycle
<b>IMSS</b>	Image Multi-Spectral Sensor
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IPHE</b>	International Partnership for the Hydrogen Economy
<b>ITER</b> way")	International Thermonuclear Experimental Reactor (also Latin for "the way")
<b>IWG</b>	Interagency Working Group
<b>kg</b>	Kilogram
<b>kW</b>	Kilowatt
<b>kWe</b>	Kilowatt (electric)
<b>kWh</b>	Kilowatt-hour
<b>LCCP</b>	Life-Cycle Climate Performance
<b>LFG</b>	Landfill Gas
<b>LH<sub>2</sub></b>	Liquefied Hydrogen
<b>LIBS</b>	Laser Induced Breakdown Spectroscopy
<b>LIDAR</b>	Light Detection and Ranging
<b>LNLC</b>	Low Nutrient, Low Chlorophyll
<b>MFE</b>	Magnetic Fusion Energy
<b>MiniCAM</b>	Mini Climate Assessment Model (Pacific Northwest National Laboratory)
<b>MM</b>	Measuring and Monitoring
<b>MOF</b>	Microporous Metal Organic Frameworks
<b>mpg</b>	miles per gallon
<b>mph</b>	miles per hour
<b>MtC</b>	Megatonnes Carbon
<b>MWe</b>	Megawatt electric
<b>N<sub>2</sub>O</b>	Nitrous Oxide
<b>NACP</b>	North American Carbon Program
<b>NAE</b>	National Academy of Engineering
<b>NAS</b>	National Academy of Sciences
<b>NASA</b>	National Aeronautics and Space Administration
<b>NEPO</b>	Nuclear Energy Plant Optimization (Program)
<b>NERAC</b>	Nuclear Energy Research Advisory Committee
<b>NETL</b>	National Energy Technology Laboratory
<b>NH<sub>3</sub></b>	Ammonia
<b>NIF</b>	National Ignition Facility
<b>NNSA</b>	National Nuclear Security Administration, U.S Department of Energy
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>NRC</b>	National Research Council or Nuclear Regulatory Commission
<b>NRCan</b>	Natural Resources Canada
<b>NREL</b>	National Renewable Energy Laboratory
<b>NSCR</b>	Non-Selective Catalytic Reduction

<b>NSF</b>	National Science Foundation
<b>NSTX</b>	National Spherical Torus Experiment
<b>NVFEL</b>	National Vehicle and Fuels Emission Laboratory
<b>OC</b>	Organic Carbon
<b>ODS</b>	Ozone-Depleting Substance
<b>OMB</b>	Office of Management and Budget
<b>ORNL</b>	Oak Ridge National Laboratory
<b>PEM</b>	Polymer Electrolyte Membrane
<b>PFC</b>	Perfluorocarbons
<b>PM</b>	Particulate Matter
<b>PNNL</b>	Pacific Northwest National Laboratory
<b>PPPL</b>	Princeton Plasma Physics Laboratory
<b>PV</b>	Present Value
<b>Quad</b>	Quadrillion BTUs
<b>R&amp;D</b>	Research and Development
<b>RD&amp;D</b>	Research, Development, and Demonstration
<b>RDD&amp;D</b>	Research, Development, Demonstration, & Deployment
<b>RFI</b>	Request for Information
<b>SCR</b>	Selective Catalytic Reduction
<b>SF<sub>6</sub></b>	Sulfur Hexafluoride
<b>SOFeX</b>	Southern Ocean Iron Fertilization Experiment
<b>SOIREE</b>	Southern Ocean Iron Enrichment Experiment
<b>SO<sub>x</sub></b>	Sulfur Oxides
<b>SRES</b>	Special Report on Emissions Scenarios
<b>T&amp;D</b>	Transmission and Distribution
<b>TgC</b>	Teragrams of Carbon
<b>Tg CO<sub>2</sub></b>	Teragrams Carbon Dioxide
<b>Tg CO<sub>2</sub>-eq.</b>	Teragrams Carbon Dioxide Equivalent (emissions)
<b>UN</b>	United Nations
<b>UNDP</b>	United Nations Development Program
<b>UNEP</b>	United Nations Environmental Program
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>USAID</b>	U.S. Agency for International Development
<b>USDA</b>	U.S. Department of Agriculture
<b>VAM</b>	Ventilation Air Methane
<b>VOC</b>	Volatile Organic Compounds
<b>W/m<sup>2</sup></b>	Watts per Square Meter
<b>WCRP</b>	World Climate Research Program
<b>WG</b>	Working Group
<b>WMO</b>	World Meteorological Organization
<b>WOCE</b>	World Ocean Circulation Experiment
<b>WRE</b>	T. Wigley, R. Richels, and J. Edmonds